

## ABSTRACT OF THE DISCLOSURE

The specification discloses a material with a surface nanometer functional structure and the method of manufacturing the same. Using the properties of supercritical fluids, a nanometer structure is formed on the surface of a substrate, resulting in a material with a surface nanometer functional structure. The supercritical fluid carries the precursor of functional materials. Once they reach a reaction balance with the substrate in a high-pressure container, the pressure is released at an appropriate speed. The carbon dioxide supercritical fluid undergoes a vaporization reaction, distributing and adhering the precursors on the substrate to form the surface nanometer functional structure. Utilizing the VLS nanowire growth method, one-dimensional and two-dimensional compound nanometer functional wire structure can be produced.